AMENDMENT TO THE CLAIMS

1-9 (Cancelled)

10. **(Currently amended)** A method of preserving motor function in a mammal with symptoms of ~~or at risk of~~ amyotrophic lateral sclerosis, comprising administering to said mammal a morphogen, wherein the morphogen:

(1) comprises a dimeric protein having an amino acid sequence with:

(a) at least 70% homology with, and preserving cysteines of, the C-terminal seven-cysteine skeleton of human OP-1, residues 330-431 of SEQ ID NO: 2; or

(b) greater than 60% amino acid sequence identity with, and preserving cysteines of, said C-terminal seven-cysteine skeleton of human OP-1;

~~(c) defined by Generic Sequence 7, SEQ ID NO: 4;~~

~~(d) defined by Generic Sequence 8, SEQ ID NO: 5;~~

~~(e) defined by Generic Sequence 9, SEQ ID NO: 6;~~

~~(f) defined by Generic Sequence 10, SEQ ID NO: 7; or~~

~~(g) defined by OPX, SEQ ID NO: 3;~~ and

(2) stimulates production of an N-CAM or L1 isoform by an NG108-15 cell *in vitro*;

whereby motor function is preserved in said mammal by enhancing neuronal survival and synapse formation.

11. **(Canceled)**

12. **(Currently amended)** A method of preserving motor function in a mammal with ~~symptoms of or at risk of~~ a spinal cord injury, comprising administering to said mammal a morphogen, wherein the morphogen:

(1) comprises a dimeric protein having an amino acid sequence with:

(a) at least 70% homology with, and preserving cysteines of, the C-terminal seven-cysteine skeleton of human OP-1, residues 330-431 of SEQ ID NO: 2; or

(b) greater than 60% amino acid sequence identity with, and preserving cysteines of, said C-terminal seven-cysteine skeleton of human OP-1;

~~(c) defined by Generic Sequence 7, SEQ ID NO: 4;~~

~~(d) defined by Generic Sequence 8, SEQ ID NO: 5;~~

~~(e) defined by Generic Sequence 9, SEQ ID NO: 6;~~

~~(f) defined by Generic Sequence 10, SEQ ID NO: 7; or~~

~~(g) defined by OPX, SEQ ID NO: 3;~~ and

(2) stimulates production of an N-CAM or L1 isoform by an NG108-15 cell *in vitro*; whereby motor function is preserved in said mammal by enhancing neuronal survival and synapse formation.

13-18. **(Canceled)**

19. **(Currently amended)** A method of preserving motor function in a mammal with symptoms of ~~or at risk of~~ amyotrophic lateral sclerosis, comprising administering to said mammal a morphogen selected from: human OP-1, mouse OP-1, human OP-2, mouse OP-2,60A, GDF-l, BMP2A, BMP2B, DPP, Vgl, Vgr-1, BMP3, BMP5, or BMP6, wherein said morphogen stimulates production of an N-CAM or Ll isoform by an NG108-15 cell *in vitro* whereby motor function is preserved in said mammal by enhancing neuronal survival and synapse formation.

20. **(Canceled)**

21. **(Previously presented)** A method of preserving motor function in a mammal with ~~symptoms of or at risk of~~ a spinal cord injury, comprising administering a morphogen selected from: human OP-1, mouse OP-1, human OP-2, mouse OP-2, 60A, GDF-1, BMP2A, BMP2B, DPP, Vgl, Vgr-1, BMP3, BMP5, or BMP6, wherein said morphogen stimulates production of an N-CAM or L1 isoform by an NG108-15 cell *in vitro* whereby motor function is preserved in said mammal by enhancing neuronal survival and synapse formation.

22-23. **(Canceled)**

24. **(Currently amended)** The method of claim 10, wherein the morphogen ~~comprises a dimeric protein having an amino acid sequence with at least 70%~~

~~homology with the C-terminal seven cysteine skeleton of human OP-1, residues 330-431 of SEQ ID NO: 2~~ is selected from the group consisting of COP-5 and COP-7.

25. **(Canceled)**

26. **(Currently amended)** The method of claim 12, wherein the morphogen ~~comprises a dimeric protein having an amino acid sequence with at least 70% homology with the C-terminal seven cysteine skeleton of human OP-1, residues 330-431 of SEQ ID NO: 2~~ is selected from the group consisting of COP-5 and COP-7.

27. **(Canceled)**